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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,146	04/08/2004	Cary Lee Bates	ROC920030419US1	8972
7590 12/03/2007 Grant A. Johnson IBM Corporation, Dept. 917 3605 Highway 52 North Rochester, MN 55901-7829			EXAMINER KISS, ERIC B	
			ART UNIT 2192	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/821,146

Applicant(s)

BATES ET AL.

Examiner

Eric B. Kiss

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. The reply filed September 26, 2007, has been received and entered. Claims 1 and 3-20 are pending.

#### *Response to Amendment*

2. The objection to claims 4, 7, 10, and 13 is withdrawn in view of applicant's amendments.
3. The rejection of claims 5-8 under 35 U.S.C. § 101 is maintained.
4. The rejection of claims 9-12 under 35 U.S.C. § 101 is withdrawn in view of applicant's amendments.
5. The rejection of claims 1 and 3-20 under 35 U.S.C. § 112, first paragraph, is maintained.
6. The rejection of claims 6-9, 11, and 14-16 under 35 U.S.C. § 112, second paragraph, is withdrawn in view of Applicant's amendments.
7. The rejection of claims 1, 3, 4, and 17-20 under 35 U.S.C. § 112, second paragraph, is maintained to the extent reproduced below.
8. The rejection of claim 1 under 35 U.S.C. § 102(b) is withdrawn in view of applicant's amendment.

#### *Response to Arguments*

9. Applicant's arguments filed September 26, 2007, have been fully considered but they are not persuasive.

**a. The rejection of claims 5-8 under § 101 (Remarks 6-7)**

Applicant argues that, "[T]he means plus function language of claims 5-8 may be interpreted, by way of example and not of limitation, as a random-access semiconductor memory that stores instructions capable of executing on a processor, as a random-access semiconductor

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memory that stores statements capable of being interpreted by instructions capable of executing on a processor, or as hardware implemented via logic gates, all of which are physical components, articles, or objects." (Remarks 7 (emphasis added).) However, the specification does not limit the means to these recited structures, but rather goes on to explain that,

[T]he various embodiments of the invention are capable of being distributed as a program product in a variety of forms, and the invention applies equally regardless of the particular type of signal-bearing medium used to actually carry out the distribution. The programs defining the functions of this embodiment may be delivered to the computer system 100 via a variety of signal-bearing media, which include . . . information conveyed to the computer system 100 by a communications medium, . . . including wireless communication.

(Specification 9-10.) Such "structures", consisting of either programs defining the functions or signals encoded with programs defining the functions, are non-statutory. *See In re Nuijten*, 500 F.3d 1346, 1353, 84 USPQ2d 1495, 1500 (Fed. Cir. 2007).

**b. The rejection of claims 1-20 under § 112, first paragraph (Remarks 8-11)**

The purpose of the requirement that the specification describe the invention in such terms that one skilled in the art can make and use the claimed invention is to ensure that the invention is communicated to the interested public in a meaningful way. The information contained in the disclosure of an application must be sufficient to inform those skilled in the relevant art how to both make and use the claimed invention. MPEP § 2164.

As the CCPA observed in *Sherwood*, the writing of a program may require varying degrees of skill:

In general, writing a computer program may be a task requiring the most sublime of the inventive faculty or it may require only the droning use of clerical skill. The difference between the two extremes lies in the creation of mathematical

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methodology to bridge the gap between the information one starts with ("the input") and the information that is desired ("the output").

*In re Sherwood*, 613 F.2d 809, 816-17, 204 USPQ 537, 544 (CCPA 1980), cert. denied, 450 U.S. 994, 68 L. Ed. 2d 193, 101 S. Ct. 1694 (1981).

Given a properly defined program specification or a detailed algorithm (*i.e.*, the "bridge" between the input and output, *see Id.*) a computer programmer can generally produce an acceptable computer program to carry out the functions necessary to implement the program specification. However, where the program specification is lacking, the computer will, in general, not relieve the burden on the programmer of filling in the missing details.

As noted in the previous Office action,

One attempting to make or use the claimed invention would be left entirely on their own to come up with the algorithm necessary to start with an event handler capable of receiving an add class event (step 510) and a class path (step 515) and produce appropriate determinations as to whether a current class is "newer" (by an unspecified standard) or "owned by a user doing debug" necessary to enable the generation of a warning (along with a stored reason for the warning). As noted above, while applicant's specification and drawings suggest high-level steps of determining whether a class is "newer" and "owned by a user doing debug", each of these steps would require several sub-steps, and the lack of guidance in the disclosure as to what these sub-steps are would necessitate undue experimentation to achieve a working implementation.

(Non-Final Rejection 5-6.)

The cited portions of the specification (Figs. 5A and 5B (blocks 505, 510, 515, 520, 525, 530, 555, 560, 565, and 575); p. 12, line 21, through p. 14, line 16) describe only example processing for a classpath controller in general terms, including a processing of an add class event, an addition of a class to debug, and turning on a warning indicator if a current class is "newer" than a previously added class or if a current class is "owned" by a user "doing debug". Further, the remaining portions of the specification do not describe the conditions under which a

class is an incorrect version, but only describe in general terms a scenario in which a classpath controller, "suspects that the associated class . . . may be the incorrect version." (Specification 14.) Thus, the disclosed system would appear to be capable of, at best, a guess as to whether a class may be "incorrect", rather than determining or even properly defining any actually "correctness" such that the claimed invention can be carried out without undue experimentation.

Applicant suggests that, "the ordinary dictionary meaning of the terms 'older' and 'newer,' is used," (Remarks 9) citing Merriam-Webster Collegiate Dictionary, 10<sup>th</sup> ed., 2000 (providing multiple definitions of the term "new" and not describing how "newer" may be determined by a classpath controller). Applicant further makes the unsupported assertion that, "determining whether one file is older or newer than another is a trivial exercise for a person of ordinary skill in the art." The arguments of counsel cannot take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). As noted in the previous Office action, the only apparent description of such functionality is in reference to FIG. 5B step 560 (See Specification at p. 13, lines 18-21 (merely repeating the desired functionality without describing how it is achieved)).

Although applicant's mock-ups of desired user interfaces may be achievable in the broadest sense (e.g., displaying static text in a popup window) using known hardware and known user interface concepts, it is the information itself that applicant intends to be displayed that is at issue. As discussed throughout this Office action, applicant's disclosure does not fully support the various determinations regarding the class path controller such that a display of such warnings can be derived from the input class path. The mock-ups of an intended GUI are merely

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prophetic examples rather than representing actual working examples that would help support applicant's arguments of enablement.

Applicant's assertion that, "File and class ownership are well known to persons of ordinary skill in the art." To support this assertion, application cites an illegible copy of a dictionary entry for the term "class" and a definition for "file owner" described only in terms of a user of an AIX operating system and not describing how such ownership may be determined by a classpath controller. The assertion and evidence provided do not address the concerns raised in the previous Office action:

Applicant's specification does not adequately define . . . how a determination may be made as to whether such a user "owns" the first/second file/class. The only apparent description of such functionality is in reference to FIG. 5B step 575 (See Specification at p. 14, lines 2-5 (merely repeating the desired functionality without describing how it is achieved)).

(Non-Final Rejection 5.)

[W]hile applicant's specification and drawings suggest high-level steps of determining whether a class is "newer" and "owned by a user doing debug", each of these steps would require several sub-steps, and the lack of guidance in the disclosure as to what these sub-steps are would necessitate undue experimentation to achieve a working implementation.

(Non-Final Rejection 6.)

**c. The rejection of claims 1, 3, 4, and 17-20 under § 112, second paragraph (Remarks 11-12)**

Claims 1, 3, and 4

Applicant has amended claim 1 to recite, "wherein the determining whether the first file is the incorrect version further comprises determining whether a second file later in the classpath from the first file is an earlier version than the first file." (Claim 1 (emphasis added).) Rather

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than providing a clear definition of the term “incorrect”, the amendment merely provides that the previously undefined and indefinite step has one or more additional substeps (*i.e.*, the open-ended phrase “further comprises” is used rather than a more limiting and defining language).

The cited portions of the specification (Figs. 5A and 5B (blocks 505, 510, 515, 520, 525, 530, 555, 560, 565, and 575); p. 12, line 21, through p. 14, line 16) describe only example processing for a classpath controller in general terms, including a processing of an add class event, an addition of a class to debug, and turning on a warning indicator if a current class is “newer” than a previously added class or if a current class is “owned” by a user “doing debug”. Further, the remaining portions of the specification do not describe the conditions under which a class is an incorrect version, but only describe in general terms a scenario in which a classpath controller, “suspects that the associated class . . . may be the incorrect version.” (Specification 14.) Thus, as noted above, even if applicant had provided an enabling disclosure (see the rejection under § 112, first paragraph), the disclosed system would appear to be capable of, at best, a guess as to whether a class may be “incorrect”, rather than providing any concrete definition of what correctness means in this context (nor will a dictionary definition of “incorrect” address this issue).

#### Claims 17-20

Applicant has suggested that “configuring” in claim 17 is being used, “with the ordinary dictionary meaning,” (Remarks 12) citing Merriam-Webster Collegiate Dictionary, 10<sup>th</sup> ed., 2000 (“to set up for operation esp. in a particular way <a fighter plane *configured* for the Malaysian air force>”). This dictionary definition fails to address any of the concerns raised in the previous Office action:



[I]t is unclear what concrete steps are required by the various “configuring” steps recited in these claims. The specification appears to describe “configuring”/ “configuration(s)” in the context of hardware arrangements and processing architectures. Accordingly, it is not clear whether applicant intends these claims to cover: (1) merely creating a hardware arrangement capable of carrying out the described functions (if programmed to do so at some later time); (2) some programmed computer executing software necessary to carry out the described functions; or (3) the mere act of writing a program.

(Non-Final Rejection 7.)

***Claim Rejections - 35 USC § 101***

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 5-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” In this context, “functional descriptive material” consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of “data structure” is “a physical or logical relationship among data elements, designed to support specific data manipulation functions.” The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) “Nonfunctional descriptive material” includes but is not limited to music, literary works and a compilation or mere arrangement of data. Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*. *In re Warmerdam*, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1760 (claim to a data structure *per se* held nonstatutory).

Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in

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the computer. *See, e.g., In re Warmerdam*, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Similarly, computer programs claimed as computer listings per se, *i.e.*, the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. *See In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035.

Claims 5-8 recite an "apparatus" comprising a series of means that can be reasonably interpreted as software, *per se*. The claim does not define any structural and functional interrelationships between the software elements and a computer that would permit the described functionality to be realized when the software is employed as a computer component.

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Accordingly, claims 5-8 appear to merely set forth functional descriptive material *per se*, which is nonstatutory.

12. To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. §101 (non-statutory) above are further rejected as set forth below in anticipation of Applicant amending these claims to place them within the four statutory categories of invention.

***Claim Rejections - 35 USC § 112***

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. Claims 1 and 3-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant's specification does not adequately define what is meant by the terms "incorrect", "older", or "newer" in the context of the recited determining steps or how a determination may be made as to whether a particular file or class may be determined to be "incorrect", "older", or "newer". The only apparent description of such functionality is in reference to FIG. 5B step 560 (See Specification at p. 13, lines 18-21 (merely repeating the desired functionality without describing how it is achieved)).

Applicant's specification does not adequately define what is meant by a user "doing debug" or how a determination may be made as to whether such a user "owns" the first/second

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file/class. The only apparent description of such functionality is in reference to FIG. 5B step 575 (See Specification at p. 14, lines 2-5 (merely repeating the desired functionality without describing how it is achieved)).

Further, while the specification illustrates “exemplary” user interfaces (FIGS. 2 through 4), no description in the specification recites the necessary steps to acquire and display such information (See Specification at p. 10, line 24, through p. 12, line 20 (merely describing desired features of pictorial representations of exemplary user interfaces)).

Undue experimentation would be required by one of ordinary skill in the art in making or using the claimed invention because the necessary steps in creating any working implementation of the invention are well beyond the scope of the disclosure. One attempting to make or use the claimed invention would be left entirely on their own to come up with the algorithm necessary to start with an event handler capable of receiving an add class event (step 510) and a class path (step 515) and produce appropriate determinations as to whether a current class is “newer” (by an unspecified standard) or “owned by a user doing debug” necessary to enable the generation of a warning (along with a stored reason for the warning). As noted above, while applicant’s specification and drawings suggest high-level steps of determining whether a class is “newer” and “owned by a user doing debug”, each of these steps would require several sub-steps, and the lack of guidance in the disclosure as to what these sub-steps are would necessitate undue experimentation to achieve a working implementation.

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15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claims 1-4, 6-9, 11, and 14-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "incorrect" in claims 1-4 is a relative term which renders the claim indefinite. The term "incorrect version" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Regarding claims 17-20, it is unclear what concrete steps are required by the various "configuring" steps recited in these claims. The specification appears to describe "configuring"/"configuration(s)" in the context of hardware arrangements and processing architectures. Accordingly, it is not clear whether applicant intends these claims to cover: (1) merely creating a hardware arrangement capable of carrying out the described functions (if programmed to do so at some later time); (2) some programmed computer executing software necessary to carry out the described functions; or (3) the mere act of writing a program. As the intended scope of these claims is not clearly ascertainable, these claims are indefinite.

### *Conclusion*

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric B. Kiss whose telephone number is (571) 272-3699. The Examiner can normally be reached on Tue. - Fri., 7:00 am - 4:30 pm. The Examiner can also be reached on alternate Mondays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam, can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Any inquiry of a general nature should be directed to the TC 2100 Group receptionist:

571-272-2100.

A handwritten signature in black ink, appearing to read "Eric B. Kiss". The signature is stylized with a large "E" and "K".

Eric B. Kiss  
Primary Patent Examiner  
November 30, 2007